REMARKS

In a July 1, 2010 final office action, Examiner indicated that Applicant's previous arguments in relation to the previous rejection under 35 U.S.C. §102 were moot in view of the new grounds of rejection. Examiner rejected all pending claims (claims 1-10, 12-19 and 27-30 with claim 1 being the only independent claim) under 35 U.S.C. 102, citing United States Patent Publication Number 20030216143 ("Roese").

The present invention as recited in independent claim 1 before the last office action related to a system exchange method for automatically providing at least one system attribute to one or more Voice-over-Internet Protocol (IP) devices in a network, the method comprising the steps of: automatically sending a Voice-over-IP device identification message from the one or more Voice-over-IP devices to a node when the one or more Voice-over-IP devices are operably coupled to the node; automatically responding with a device identification acknowledgement message from the node to the one or more Voice-over-IP devices, the device identification acknowledgement message comprising one or more system attributes, including a virtual local area network (VLAN) identification of a Voice-over-IP VLAN assigned in the network and connectivity information; conveying the connectivity information from the one or more Voice-over-IP devices to a private branch exchange system that maintains an external relation database; and associating the connectivity information at the external relation database with a geographic location of the one or more Voice-over-IP devices.

The system attributes as detailed in the present application may include the VLAN identification of a VoIP VLAN assigned in the network and the switching device (node)

identification, slot number and port number to which the Voice-over-IP device is connected. The identification, slot number and port number may be communicated to the PBX where they are used to relate the physical location of the port connection with the Voice-over-IP device to which it is connected. Connectivity information generally includes the switching device identification as well as the port identification, including slot number and port number on which the IP phone connects to the switching device. The IP PBX includes an external relational database having one ore more tables that associate the switch, slot and port numbers with known geographic distribution of the nodes of the network.

In one embodiment, the Voice-over-IP device transmits a VoIP device identification (VDI) message as soon as it is plugged into the network to announce the presence of the Voice-over-IP device (i.e. to identify the IP phone as a VoIP device to the adjacent switching device (node) so that the adjacent switching device can include the IP phone in the VLAN reserved for VoIP and incorporate the IP phone into the switching device's forwarding tables). After the adjacent switching device is made aware of the installation of the IP phone, the IP PBX is also made aware of the presence of the IP phone.

A VDI acknowledgement message is sent from the adjacent switching device to the VoIP device with at least one system attribute-the VLAN configuration in the switching device for VoIP traffic and the value assigned to the VLAN (i.e. the VID). The VDI acknowledgement message also preferably includes connectivity information which when associated with the geographic distribution of the switching devices provides location information for the Voice-

over-IP devices. The Voice-over-IP devices communicate indirectly with the IP-PBX by means of the switching device.

An alternative embodiment involves a switching device sending the initial message to the Voice-over-IP device upon initialization. The Voice-over-IP device would then respond with the VDI message with the only difference being that the MAC address of the switching device is now known to the Voice-over-IP device for purposes of sending the VDI message.

The present invention overcomes shortcomings in the prior art related to having to manually configure the VID (VLAN identification) in each Voice-over-IP phone either directly or through a network management tool when it is connected to a switching device. The prior art also uses an external database consulted by the PBX to determine the physical location of the Voice-over-IP device placing a call. The location information in the external database must be manually entered and is inaccurate when a Voice-over-IP device is moved to a new location in the network until updated.

The cited prior art, Roese, discloses a system that associates physical locations with network-linked devices in a network. A device can determine its own position and relay that information to applications within the network at start-up, upon connection or when queried or the system can determine the location of the device and store that information and give it to the device if appropriate. The methodology of the cited prior art involves receiving connection information at a first device from a neighboring network device and determining physical location of the first device based on the connection information. The method may include transmitting the physical location of the first device from the neighboring network device to the

first device. A location module can also be configured to determine a physical location of a connection point and to transmit the physical location to a client device in communication with the connection point.

The system shown in Roese involves a user device 104a (Voice-over-IP device of present invention per Examiner) connected to a network entry device 114a (IP-PBX of present invention per Examiner) that connects to a network switching device 136 (node of present invention per Examiner) that connects to a location server 134 having a location module containing a location database (relation database of present invention per Examiner). Roese involves a methodology in which the user device transmits the connection point ID to the location server through the network entry device and the network switching device and the location server determines the location information for the user device from its location database and returns the location information back to the user device through the network switching device and the network entry device.

The present invention is not disclosed in Roese because the present invention involves at least one system attribute, including a VLAN identification being transmitted from a switching device *adjacent to the IP phone* (not a location server only indirectly connected to the user device as in Roese) along with connectivity information which includes the switching device identification as well as the port identification, including slot number and port number on which the IP phone connects to the switching device. In the present invention, a VDI acknowledgement message *originating* from the adjacent switching device (node) informs the

Voice-over-IP device of the VLAN configuration in the switching device for VoIP traffic (not originating from a location server only indirectly connected to the user device as in Roese).

In addition, the present invention involves a Voice-over-IP device having an indirect connection with the IP-PBX through the adjacent node (not a direct connection between the alleged Voice-over-IP device (user device 104a) and the alleged PBX (network entry device 114a)). In Roese, the alleged PBX (network entry device 114a) also is not maintaining the alleged external relation database. Instead, the location server and the location module thereof maintain the alleged external relation database (location database).

To accentuate these differences between the cited prior art and the present invention, independent claim 1 has been amended to include limitations related to the node (e.g. switching device) being adjacent to the Voice-over-IP device; the VDI acknowledgement message originating from the adjacent node (e.g. switching device); and the Voice-over-IP device conveying connectivity information to the PBX through the adjacent node.

Regarding claims 2-10, 12-19, and 27-30, as these claims depend either directly or indirectly from independent claim 1, and therefore incorporate all the limitations therein, for the reasons set forth above with respect to claim 1, Applicants respectfully assert that these claims are also patentable over the cited reference.

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CONCLUSION

It is believed that the foregoing places the application in condition for allowance; therefore, Applicants respectfully request withdrawal of the Examiner's rejection of the claims as set forth in the most recent office action, and full allowance of same. Should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned to expeditiously resolve any outstanding issues.

Respectfully submitted,

By: _____

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